Date: Tue, 4 Jan 94 04:30:20 PST

From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>

Errors-To: Ham-Ant-Errors@UCSD.Edu

Reply-To: Ham-Ant@UCSD.Edu

Precedence: Bulk

Subject: Ham-Ant Digest V93 #162

To: Ham-Ant

Ham-Ant Digest Tue, 4 Jan 94 Volume 93 : Issue 162

Today's Topics:

Any comments on the Comet B20NMO?

Best of both worlds?

Commercial Antenna Tuners (2 msgs)

Help Getting Cables Inside (2 msgs)

Information Needed

Measuring antenna Q (quality factor)

Need info on Hy-Gain 5BDQ antenna

Office Antenna

Where to get ladder feed

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu> Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 3 Jan 94 16:07:06 GMT

From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu

Subject: Any comments on the Comet B20NMO?

To: ham-ant@ucsd.edu

>

In article <steve-030194004327@fuzbat.pgh.pa.us> steve@telerama.pgh.pa.us (Stephen D. Cohen) writes:

> As I was interested in antennas of this type, the Comet B20NMO looked >like a good compromise. Does anyone have any comments on this antenna, or >suggestions for other antennas that fit my requirements? Thanks in >advance...

I use the B10NMO which is shorter. It works fine on UHF, about like

a quarterwave on 2 meters, and I use a triplexer to feed my cellular phone off of it too. The B20NMO is supposed to have some gain on 2 meters as well. Mechanically nice antennas, and they do seem to work.

Gary

- -

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 |

Date: Tue, 4 Jan 1994 08:53:35 GMT

From: netcomsv!netcom.com!tcj@decwrl.dec.com

Subject: Best of both worlds?

To: ham-ant@ucsd.edu

As the proud owner of a shiny new FT-736, I need to do some serious gardening on my antenna farm (25 watts into 50 feet of RG-8/U and a triband vertical is okay for FM, but downright laughable for SSB on the high bands!) Naturally I'd like to be able to work every band in every mode, including OSCAR, but since the "antenna farm" lives on the roof where there's limited space, I'm going to have to make some compromises. My current plan is to try my hand at some crossed yagis, which will be appropriate for a lot of satellite work and should also perform reasonably well for terrestrial work (albeit with a loss on the order of 3 db as I understand it.)

Since a crossed yagi is essentially two antennas (one horizontally polarized and the other vertically polarized) that share the same boom, a thought has occurred to me: is it possible to design a crossed yagi that could be switched at will so as to operate as either a vertically, horizontally or circularly polarized beam? I've been unable to find any references to such a design, and suspect that the nature of the phasing harness, insertion loss associated with switches, etc. make it impractical. Any comments, hints or suggestions?

Todd, KB6JXT

Date: 3 Jan 1994 16:39:53 GMT

From: swrinde!gatech!howland.reston.ans.net!math.ohio-state.edu!news.acns.nwu.edu!

casbah.acns.nwu.edu!lapin@network.ucsd.edu

Subject: Commercial Antenna Tuners

To: ham-ant@ucsd.edu

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In article <940102.13295.LEEVANKOTEN@delphi.com>,
Leland Van Koten <LEEVANKOTEN@delphi.com> wrote:
>
>Charles --
>
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>I've heard the "Mighty Fine Junk" references, and they are accuarate in >relation to some MFJ products, such as their 2 meter 5/8 wave antenna, but not >with respect to the tuners -- at least in my experience. I'm on my second MFJ >tuner, this one being the MFJ-986 that you referred to. With it, I have no >problem loading a twin-lead fed 80 meter inverted V on everything from 160 to >10 meters. Depending on the length of your feed line, it can take some >tweaking (on parts of 20 meters, I can't get below about a 1.5:1 SWR no matter >what),

>but it has been very reliable and lot of Europeans can't believe I'm running >barefoot.

>

> 73 de Lee/KE3FB in Md.
> leevankoten@delphi.com
>

Lee:

I have had 2 Mighty Fine Junk tuners and, although I like them, I still consider them to be junk out of the box.

After I fix them, they are quite good.

Check the backs of your tuners. Both of mine had the UHF connectors attached to the chassis with aluminum pop-rivets. In the first one, the rivets were a little loose and the signal was intermittent. Upon opening it up, I found that these comprised the only ground connection. I drilled out the rivets and used steel screws with lots of lockwashers (another junky design: the nice krinkle paint finish got into the holes for the rivets, decreasing the available area for ground contact).

On my second tuner I didn't wait for the rivet to get loose, I replaced them as soon as I got it out of the box.

Greg Lapin KD9AZ glapin@nwu.edu

Date: 3 Jan 94 20:25:12 GMT

From: ogicse!cs.uoregon.edu!sgiblab!sdd.hp.com!col.hp.com!srgenprp!

alanb@network.ucsd.edu

Subject: Commercial Antenna Tuners

To: ham-ant@ucsd.edu

Doug Braun (dbraun@ilx049.intel.com) wrote:

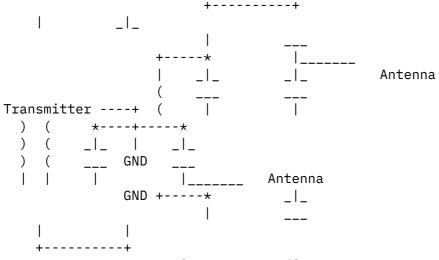
: In article <CICwu3.7G4@srgenprp.sr.hp.com>, alanb@sr.hp.com (Alan Bloom) writes:

[Re: Johnson Transmatch]

- : |> It's basically a tuned circuit with a link-coupled output, as I recall.
- : |> Its big advantage over most modern tuners is that it has a true balanced
- : |> output, without the need for an external balun. If you are feeding
- : |> twinlead or open-wire feedline, the Matchbox is the hot ticket. It can
- : I have seen vague references to the link-coupled concept,
- : but no actual circuits or products. Can anyone describe it better?
- : I assume that you basically have a transformer with variable
- : coupling, so that you can tune a wide range of impedances.

That's one way to do it. The venerable "swinging link" changed the coupling factor by physically moving the link closer or farther away from the main coil.

My memory may fail me on this, but I think this is the circuit of the Johnson Matchbox:



Tuning Cap Loading Cap

All the capacitors are variable. The tuning cap is 2-section and the loading cap 4-section with the two outer sections turning in the opposite direction to the two inner sections.

For unbalanced output, you just use one of the antenna connections. For balanced output, you use both.

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-----Date: 3 Jan 94 14:23:11 GMT From: ogicse!uwm.edu!vixen.cso.uiuc.edu!ux1.cso.uiuc.edu!rtaylor@network.ucsd.edu Subject: Help Getting Cables Inside To: ham-ant@ucsd.edu ericr@access3.digex.net (Eric Rosenberg) writes: >My question...how do I (easily) get all the cables into the house? >The gear sits next to a hinged basement window, and it appears that >unless I replace a window pane with a piece of plexiglass and use >feedthoughs, I'l have to remove bricks...of which there are two layers >in this 1907 structure (with a gap in between). >Can anyone offer a better solution or relatively easy-to-understand >instructions on how to get the bricks out...which looks really messy! >[Funny, this was a lot more straight forward overseas. I guess it was >because the I didn't own the buildings there :-)] >Eric, WD3Q I just drilled appropriate sized holes in the wall and inserted PVC pipe, up to 3/4 inch dia. Drill slightly up hill going into the house so any water runs out, not in. _____ Date: 3 Jan 94 17:14:46 GMT From: ogicse!emory!europa.eng.gtefsd.com!paladin.american.edu!darwin.sura.net! fconvx.ncifcrf.gov!mack@network.ucsd.edu Subject: Help Getting Cables Inside To: ham-ant@ucsd.edu In article <2g99of\$e2o@vixen.cso.uiuc.edu> rtaylor@ux1.cso.uiuc.edu (Roger Taylor) >ericr@access3.digex.net (Eric Rosenberg) writes: > > >>My question...how do I (easily) get all the cables into the house?

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>>The gear sits next to a hinged basement window, and it appears that
>>unless I replace a window pane with a piece of plexiglass and use
>>feedthoughs, I'l have to remove bricks...of which there are two layers
>>in this 1907 structure (with a gap in between).
>
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>>instructions on how to get the bricks out...which looks really messy!
>>[Funny, this was a lot more straight forward overseas. I guess it was
>>because the I didn't own the buildings there :-)]
>
>>Eric, WD3Q
>
> I just drilled appropriate sized holes in the wall and inserted
> PVC pipe, up to 3/4 inch dia. Drill slightly up hill going into
> the house so any water runs out, not in.
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I've done the plexxiglass route - I didn't think it that bad of a solution actually. If you get any great ideas, as well as posting them on the net, send them to Dean Straw who is assembling the next antenna compeendium - dstraw@arrl.org -

Joe NA3T mack@ncifcrf.gov

Date: Mon, 03 Jan 1994 12:47:05 -0500

From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa

Subject: Information Needed

To: ham-ant@ucsd.edu

In article <2fkqfe\$mbf@mailer.fsu.edu>, dreid@mailer.fsu.edu (Debi Reid)
wrote:

- > I have just recently become rather intrested in radio-packet
- > digital communications. Anyrate, I need some information to
- > help me get started.

Debi-

You asked for a lot of info!

To start, are you familiar with the use of a computer with a modem, to access Bulletin Boards by telephone? If so, you're well on your way to understanding how to use Ham Packet.

If you have a BBS setup, merely disconnect the cable from the telephone modem, reconnect it to a Terminal Node Controller (TNC), connecte the TNC to your radio, and procede.

The code-free "Technician" license allows access to Ham bands above 50 MHz. I think most U.S. Packet activity is on the Two Meter Ham band, around 145.01 MHz. Most are operating at 1200 baud on the air, although you also have to set your computer and TNC for a compatible baud rate on that side of the TNC.

I have been on Packet for about 5 years, but still haven't learned the answers to all the questions you asked. I suggest you get the Technician license, and set up a basic Packet system on the Two Meter Ham band. Once you get started, you can make a lot more sense out of things, and can attack the rest of your questions one at a time!

73, Fred, K4DII

Date: 3 Jan 94 21:35:07 GMT

From: news.larc.nasa.gov!sirius.larc.nasa.gov!jcc@uunet.uu.net

Subject: Measuring antenna Q (quality factor)

To: ham-ant@ucsd.edu

I want to measure the Q (quality factor) of various antennas. How can I do this?

Thanks in advance, Jeff Case jcc@sirius.larc.nasa.gov

Date: Mon, 03 Jan 1994 13:16:37 -0700

From: orca.es.com!cnn.sim.es.com!msanders.sim.es.com!user@uunet.uu.net

Subject: Need info on Hy-Gain 5BDQ antenna

To: ham-ant@ucsd.edu

In article <1993Dec30.005204.17869@gsm001.mendelson.com>,
gsmlrn@gsm001.mendelson.com (Geoffrey S. Mendelson) wrote:

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> Hi,
>
    I purchased a Hy-Gain 5BDQ 10-80m trap antenna today as a close out.
>
> When I opened the box, I found that some of the hardware, the wire, and
> the instructions were missing. All of the traps were there and I expect that
> they would be the hardest part.
>
> Does anyone have an address/telephone/fax number for Hy-Gain?
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> Does anyone have one of these antennas and if you do, could you please copy the > manual for me? I would be willing to pay copying/fax costs.

>

> Thanks and 73

>

> Geoff.

Geoff:

I had a similar need for a Hy Gain manual. Here is the address of where to get one. Hy Gain was apparently purchased by another company, TELEX.

Mr. John King TELEX Communications, Inc. 9600 Aldrich Avenue South Minneapolis, Minnesota 55420

Milt

- -

Opinions, thoughts, &cetera are my own (when I can remember them).

"He flies the sky
Like an Eagle in the eye
of a hurricane that's abandoned."

KB7MSF UTAH

America

Date: 3 Jan 94 01:51:14 GMT

From: ogicse!uwm.edu!vixen.cso.uiuc.edu!howland.reston.ans.net!cs.utexas.edu!not-

for-mail@network.ucsd.edu
Subject: Office Antenna
To: ham-ant@ucsd.edu

Please reply via email since I don't usually read this list. My apologies if this is the wrong group. In that case, suggestions for a more appropriate group would be appreciated.

For years I've suffered with lousy am/fm radio reception in an office

environment: city (Boston) building with lots of neon lights, an internal, bottom floor office. Is there anything one can do fairly simply to improve reception? Extensive wiring is out. A large antenna is out. Buying an expensive tuner is out (I use a middle line Sony receiver). Dangling something overhead in the ceiling might be feasible. The latest attempt to improve the situation is a fairly cheap, amplified FM antenna. It helps, but only barely. Anyone have any experience using a Yagi antenna successfully in such an environment?

Thanks.

Paul Reilly Phone: (617)621-8818

Pajato Systems Group Email: pmr@pajato.com

Date: 3 Jan 94 15:59:57 GMT

From: ogicse!uwm.edu!vixen.cso.uiuc.edu!moe.ksu.ksu.edu!osuunx.ucc.okstate.edu!

olesun!gcouger@network.ucsd.edu Subject: Where to get ladder feed

To: ham-ant@ucsd.edu

In article <dsaCJ1In6.Mn0@netcom.com>, David S.A. Stine <dsa@netcom.com> wrote: >In article <2g1n5g\$4u3@convex.convex.com> tonyp@convex.com (honey bunny) writes: >>Well - the poison oak has gone dormant and I've got the time so I'm >>ready to build the rhombic I've been dying to put up. Three things:

>>o Where can I get the 600-ohm resistor needed at the far end?

- >> Also, is there some magic that
- >> takes place that requires a higher wattage or will a 100-watt
- >> resistor do the job because I'm running only 100-watts output?

>100 watts in requires a 100 watt resistor. Note that there are terminated >rhombics (which fire in one direction) and unterminated rhombics (which are >bi-directional). Unterminated means that the other end is open, I seem to >recall.

100 watts requires a 50 watt resistor as 50 watt is radiated plus some slight losses in the feeders and tuners. Non-inductive power film resistors to 50 watts are made by Caddock 909 788-1700. These need a heat sink and can be parralled to get what ever you need. e.g. a 200 watt 600 ohm resistor would need 4 2400 ohm resistors in parrallel. These resistors have a flat swr to 1 gigaHz and are resonable priced. They are lazar trimed to what ever you want and are in the \$10 or less price range.

Good luck

>

Gordon

/*	Gordon Couger	*/
/*	Biosystems & Agricultural Engineering	*/
/*	Oklahoma State University	*/
/*	114 Ag Hall, Stillwater, OK 74074	*/
/*	<pre>gcouger@olesun.agen.okstate.edu 405-744-9763 day 624-2855 evenings</pre>	*/
/*	I Speak only for myself and not for anyone else	*/
